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drink of whiskey and walked upstairs as cheerful as if he had just come into a fortune.

The majority of the wounded are strong, hearty chaps, and show a surprising amount of reserve strength and recuperative power, so that they respond very quickly to treatment. The nervous strain of long watching in the trenches, pain from their wounds and anxiety about their families, all combined, produce a state of tension that finds vent sometimes in unmanly proneness to tears; sometimes shows only in the white, drawn look on their faces. Because of these things they should have a particularly long convalescence—but cannot if the war lasts.

During the two months that I spent nursing these men in Paris, I completely recovered from any idea that an offensive war is ever justifiable. Self defense is its only possible justification, because there never could exist conditions of personal abuse, or injustice, or cruelty so limitless and so intense as the injustice, the cruelty and the abuse of person that exist as a necessary part of any kind of warfare. The more “civilized” it is, the worse it is.

From a nursing point of view the work is a bit harder and heavier than in the ordinary hospital ward here in America. The little glimpse that I got into that measureless abyss of misery that is now Europe, has drained the strength from my heart and mind to a far greater extent than I guessed at the time. Yet I’ll always look back with pleasure to those mornings at the Ambulance that began always with a chorus of “Bonjour, Mam’selle,” and a grin that rippled around the ward as I answered: “Bonjour, mes enfants. Ça va?”

SCARLET FEVER

BY ALBERT D. KAISER, M.D.

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Scarlet fever must be regarded by the informed as one of the dreaded diseases of childhood. This is due not only to the fact that an attack may be so severe as to cause death in a short time or give rise to severe complications, but because the hope of recovery, even in mild cases, has proved too often illusory. For its treatment there is no specific remedy; the mastery of this disease must lie in its prevention.

Scarlet fever has been endemic in Europe for centuries. In the seventeenth century this disease was separated from other infectious exanthemata, especially from measles, but it remained for the nineteenth century to differentiate diphtheria, first clinically, later bacteri-

logically, from the pharyngeal effects of scarlet fever. The disease has always been most prevalent in civilized portions of the world and has shown remarkable differences in the severity of its separate outbreaks. It is more especially a disease of temperate climates. In Europe it is more generally prevalent in England and Germany, in which countries it is always present and frequently epidemic. In the United States it affects particularly the northern states, being more prevalent there than in the South. It is also a city rather than a rural disease. Scarlet fever prevails during the colder months. The autumn months with the opening of the schools show a marked increase in the number of cases, which is progressive until a maximum is reached in January. There is no marked decline until the summer months.

No age is exempt in scarlet fever though it is primarily a disease of childhood. The susceptibility to the disease becomes rapidly less with increasing years. There is at present no method available for testing out the immune or susceptible individuals. Observations that have been made during various epidemics show more than 50 per cent of the population, comprising all ages, were protected; while epidemics of measles in similar places showed that 99 per cent of the population, unprotected by previous infection, were attacked. It has also been observed that the susceptibility to scarlet fever is about seven times greater in persons under twenty than in those over forty. The most susceptible period is from the second to the twelfth year. Cases occurring in children under one year of age are rare. The very young appear to possess a distinct immunity.

The fatality in this disease depends upon the virulence of the scarlet fever organism. The death varies from 1 to 15 per cent and has been known to be higher in some extremely severe epidemics. The highest mortality is in young children from one to three years of age.

The cause of scarlet fever is not known. Streptococci are almost constantly found in the throat and blood of scarlet fever patients but it is probable that the organism plays a secondary rôle and that the disease itself may be due to a protozoon-like body which lowers the resistance of the individual to streptococcal invasion. The scarlet fever germ or whatever it may be, displays great tenacity of life. It seems to cling to whatever object it encounters. In no other disease has the infection been apparently conveyed with such frequency by objects which have come in contact with those ill, as clothes, books, toys and the like.

It is assumed that the virus of scarlet fever is contained in the secretions from the nose, throat and respiratory tract and that it probably enters by the mouth and respiratory passages. Scarlet

fever is most contagious during the period of eruption; little if any during the period of invasion and not at all during the period of incubation. It is readily communicable but less so than measles or small-pox; it had long been taught that the desquamation is the most infectious stage of scarlet fever and it is now very difficult to unteach the public this erroneous view. It is now known that desquamating patients may be safely released from quarantine in the sixth week of their attack provided they have no other complications. There is no accurate means of determining just how long a child remains infective after scarlet fever. It is known, however, that cases with discharging nose, throat or ears remain infective for a long time. Another great danger in the transmission of scarlet fever is the so-called walking or unrecognized case with little further evidence than a passing sore throat. These cases doubtless spread the disease, especially in schools. Third persons may carry the disease perhaps on their clothing or as carriers. Toys, cups, spoons, thermometers, handkerchiefs and other objects contaminated by the secretions of the mouth, play the same rôle here that they do in diphtheria. Scarlet fever is not air-borne; at least the radius of infection is limited to droplet infection. Numerous epidemics spread by milk have been reported.

The period of incubation is variable but is generally from three to five days. The peculiarities of this disease are subject to wide variations. A fairly definite chain of symptoms is usually recognized. They consist in sore throat, fever, rapid pulse, the breaking out of a bright red rash over the body and extremities, and usually tenderness and swelling of the glands of the neck. These symptoms are followed by a stage known as the period of desquamation or peeling. Any one of these symptoms may be absent in the mild cases.

In the moderately severe cases the onset is usually abrupt with fever, angina, prostration and vomiting. In infants convulsions are common at the onset. The fever is high and the skin is hot and dry. The face will be flushed. This stage is known as the period of invasion and will last twenty-four to thirty-six hours. The stage of eruption follows which usually appears on the second day but may be deferred for forty-eight hours. The rash appears first on the neck and chest as a breaking out of fine bright points implanted on a scarlet flush. It spreads rapidly so that by the evening of the second day the entire body may be covered. At its height the eruption has a vivid scarlet hue quite unlike that seen in any other eruptive disease. The rash is more marked on the inner surfaces of the arms and legs and where joints make folds of the skin as in the groins and at the elbows. The rash may be patchy in some cases, with islands of normal skin. In malig-

nant attacks bleeding may take place in the skin causing large purplish patches.

After persisting at its height for two or three days the rash gradually fades, the fading being accompanied by a progressive fall of the fever. Coincident with the fading of the rash the desquamation usually begins. It may be delayed however from this time to the third or fourth week. The peeling usually begins about the neck and chest and the amount seems to bear some relation to the previous intensity of the rash. In uncomplicated cases the desquamation is completed in from two to four weeks. There are great variations in the manifestations of desquamation. In rare cases the skin of the hands and feet shed like a glove *en masse*.

The throat symptoms of scarlet fever, though not always typical, are prominent. The inflammation varies from redness of the hard palate and inner surface of the cheeks, with only slight swelling of the soft palate and tonsils, to the condition known as "diphtheroid" with much increased swelling and inflammation of the tonsils and neighboring parts. Frequently there is an extensive formation of a membrane over the tonsils and soft palate. In severe cases there would be marked swelling of the glands and soft parts of the neck causing interference with breathing.

The tongue also has a characteristic appearance. At the outset of the disease it is coated with white, the edges being red. The little papillae or prominences with which the tongue is studded, emerge through the white coating and can be seen as little red points dotting the white surface. Later in the disease the tongue is left rough and red. The papillae remain considerably swollen and this, together with the beefy appearance of the tongue, constitute a condition characteristic of scarlet fever which is described as a "strawberry tongue."

The diagnosis of scarlet fever is not always easy on account of the absence of one or the other of these symptoms. Undoubtedly there are mild cases which present no skin manifestations and consequently go unrecognized.

The complications of scarlet fever are many and severe and may develop even in a mild case. This necessitates unusual vigilance throughout the disease. Nephritis, middle-ear disease, endocarditis, and arthritis are the most common sequelae. The nephritis following scarlet fever usually develops in the second or third week. The kidney inflammation may be mild, giving rise to slight swelling of the eyelids and feet, or to those of greater severity with scanty urine loaded with albumin and general swelling of the body. Nephritis frequently follows a mild case where the patient remained in bed only a few days.

Ear complications are very common, being caused by an extension of the throat inflammation to the interior of the ears through the canals by which they open into the throat. Adenitis or inflammation of the glands of the neck is a frequent accompaniment and may be only a mild inflammation or go on to suppuration. The other complications are less common but are the means of permanently incapacitating an individual who contracted the trouble following an attack of scarlet fever.

In the treatment of this disease no specific remedy is available, consequently the first aim should be to isolate the sick child and thus prevent its spread. The disease is a long one and from the onset, first manifested by sore throat and fever, until the desquamation is completed, the child must be kept in bed. The most helpful thing that can be done is to place the patient in the most favorable position for successfully combatting the disease. The room should be the best available. All hangings, carpets and upholstered furniture are to be taken from the room before the patient is brought in. The furniture left should be of a kind readily cleansed. There should be no such fancied attempts at purifying the air as by hanging up sheets wet with disinfectants. Such measures are not only useless but tend to give a false sense of security. Needless to say the patient should be provided with bed-clothing, night gowns, towels, eating utensils and drinking vessels for his exclusive use.

A tub of good disinfectant solution should be provided for soaking articles used by the patient. Either a 5 per cent solution of carbolic acid or a 2 per cent solution of creosol may be used. A basin of disinfectant or running water should be at hand for cleaning the attendant's hands after handling the patient. No articles used by the patient should be allowed to leave the room unless they have been soaked in a disinfectant solution or boiled for at least twenty minutes. Discharges from the nose and throat should be received in pieces of cotton gauze or old linen which can be burned.

The actual treatment is chiefly dietary and symptomatic. The diet will depend upon the age of the patient. In the acute febrile period it will be exclusively milk but during the post-febrile period slight additions should be made by the use of cereals, porridge, toast and crackers. The urine should be examined every other day. Daily evacuations of the bowels should be secured. The high fever is best controlled by sponge baths at 90° or, if sponging does not answer, the pack should be brought into use.

The itching and burning of the skin in scarlet fever is most distressing. The child's comfort will be greatly enhanced by an inunction

twice daily of cold cream or liquid albolene. Vaseline or olive oil may be used, but they are much less satisfactory. During the period of desquamation the process is facilitated by rubbing the body with some bland unguent, like olive oil or cocoa butter.

During the acute stage the nose and throat demand attention. In older children a solution of menthol and albolene may be used for the nose by means of an atomizer and in the very young by instillation with a medicine dropper. The throat may be treated by means of a gargle if the child is old enough, otherwise it may be irrigated with hot saline solution at 120° F.

A period of at least three weeks in bed should be insisted upon in even the mildest type of scarlet fever. In mild cases patients have frequently seemed well in a few days and have been permitted to get up. They remained apparently well until the third week, when perhaps the physician was called in to treat a general oedema, and urine examination revealed an acute nephritis.

Any disease that offers little hope from specific treatment demands greater attempts at prophylaxis. With no precise knowledge of its cause and modes of transmission our procedures in this field are uncertain. Certain things that are very helpful can be done. It is important to recognize the mild cases in schools through an efficient medical inspection. A suspected case should always be isolated. There is no specific prophylaxis, though a streptococcus vaccine has been tried. These vaccines have been used but a short time so the amount of immunity obtained is problematical. Diseased tonsils undoubtedly furnish fertile soil for scarlet fever as well as any other infection contracted through the respiratory tract and their removal is advised as a prevention.

CREAMED DISHES FOR THE CONVALESCENT

By CORA McCABE SARGENT, R.N.

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Although savory at all times, when properly made, a creamed dish, that is, food dressed with a cream or white sauce, is preëminently intended for the sick and constitutes one of the most appetizing ways of presenting an old friend in a new guise; possibly it is one which has been prescribed during a prolonged illness and the monotony of service has become such that the eye rejects even before the palate has had the opportunity to test its merits. It is at such a time as this that the cream sauce comes to the rescue. Another virtue of the sauce is that its range